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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
10/732,945	12/11/2003	Bao-Chi Peng	39524.9100 7260		
75	90 04/18/2006		EXAMINER		
Cynthia L. Pillote			RAMPURIA, SHARAD K		
Snell & Wilmer One Arizona Ce			ART UNIT	PAPER NUMBER	
400 East Van Bi	<del></del>		2617		
Phoenix, AZ 8	35004-2202		DATE MAILED: 04/18/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicati	on No.	Applicant(s)	_			
Office Action Summary		10/732,9	10/732,945 PENG, BAO-CHI					
		Examine		Art Unit				
		Sharad R	ampuria	2617				
Period fo	The MAILING DATE of this commun r Reply	ication appears on the	e cover sheet with the	correspondence address				
A SHO WHIC - Exter after - If NO - Failui Any r	ORTENED STATUTORY PERIOD F HEVER IS LONGER, FROM THE M Isions of time may be available under the provisions SIX (6) MONTHS from the mailing date of this come period for reply is specified above, the maximum st re to reply within the set or extended period for reply eply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b).	MAILING DATE OF THE S of 37 CFR 1.136(a). In no evenunication. Italiatory period will apply and we will, by statute, cause the app	HIS COMMUNICATIO ent, however, may a reply be ill expire SIX (6) MONTHS fro lication to become ABANDON	DN. timely filed m the mailing date of this communication. IED (35 U.S.C. § 133).				
Status								
1)	Responsive to communication(s) file	ed on 27 January 200	6.					
-		2b)☐ This action is r						
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
	closed in accordance with the pract	ice under <i>Ex par</i> te Qι	<i>ayle</i> , 1935 C.D. 11,	453 O.G. 213.				
Dispositi	on of Claims							
4)🖂	Claim(s) 1-18 is/are pending in the	application.						
	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)□	Claim(s) is/are allowed.							
6)⊠	Claim(s) <u>1-18</u> is/are rejected.							
7)	Claim(s) is/are objected to.							
8)□	Claim(s) are subject to restrict	ction and/or election r	equirement.					
Applicati	on Papers							
9)[	The specification is objected to by th	e Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.								
	Applicant may not request that any obje	ection to the drawing(s) l	oe held in abeyance. S	ee 37 CFR 1.85(a).				
_	Replacement drawing sheet(s) including	-	• , ,	•				
11) 🗌	The oath or declaration is objected to	o by the Examiner. N	ote the attached Offic	e Action or form PTO-152.				
Priority u	nder 35 U.S.C. § 119							
•	Acknowledgment is made of a claim  All b) Some * c) None of:			a)-(d) or (f).				
	<ul> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> </ul>							
	3. Copies of the certified copies							
	application from the Internation	•		voa III allo Madoriai Olago				
* S	ee the attached detailed Office action	•	` ''	ved.				
Attachment	t(s)							
	e of References Cited (PTO-892)	TO 040	4) Interview Summa					
3) 🔲 Inform	e of Draftsperson's Patent Drawing Review (F nation Disclosure Statement(s) (PTO-1449 or r No(s)/Mail Date		Paper No(s)/Mail 5) Notice of Informal 6) Other:	Patent Application (PTO-152)				

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#### **DETAILED ACTION**

I. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

II. The current office-action is in response to the amendment/arguments filed on 1/27/06.

Accordingly, Claims 1-18 are pending for further examination as follows:

## Claim Rejections - 35 USC § 102

III. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

IV. Claim 1 is rejected under 35 U.S.C. 102 (e) as being anticipated by Liu et al. [US 20030069048].

As per claim 1, Liu teaches:

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A mobile device (1; Fig.1) with a selective call-answering function. (Pg.3; 0029) the mobile device comprising:

An earphone (2; Figs.2, 5, Pg.2; 0025) including a detecting device (18; Fig.3, Pg.2; 0020, 0024) for providing a status signal based on whether a user puts on the earphone; (Pg.2; 0025, Pg.3; 0029)

A processor, including: an auto-connecting module for executing an auto-connecting function; a manual-connecting module for executing a manual-connecting function; (Pg.3; 0029) and a determining module (110; Fig.3), responsive to the status signal, for controlling the mobile device to selectively execute the auto-connecting function and the manual-connecting function so as to automatically or manually answer an incoming call. (i.e. The radio earphone receiver/transmitter 2 can be set at a manual in-line mode or an automatic in-line mode alternatively. When set at a manual in-line mode, the user decides whether to establish the connection between the mobile phone receiver/transmitter 1 and the earphone receiver/transmitter 2 or not. That is, if the user hears the rings of an incoming call, he or she has to press the control switch for generating a signal to the main controller 29. The main controller 29 controls the spread spectrum function module 26 to activate the radio frequency circuit 27. Therefore, the radio frequency circuit 27 is able to communicate with the radio frequency circuit 15 of the mobile phone receiver/transmitter 1 for transmitting and receiving signals. Meanwhile, the spread spectrum function module 14 requests the main controller 17 to control the offhook/on-hook circuit 18 for generating an on-hook signal to the mobile phone 3. When set at the automatic in-line mode, establishing the connection between the mobile phone receiver/transmitter 1 and the radio earphone receiver/transmitter 2 is determined by the radio

frequency circuit 27 of the radio earphone receiver/transceiver 2. The radio frequency circuit 27 is switched to an energy-saving mode if no incoming call, activated periodically for detecting if there is an incoming call or not, and back to the energy-saving mode after detecting no incoming signal. If an incoming call is detected, the radio frequency circuit 27 is activated by the spread spectrum function module 26 for communicating with its counterpart, the radio frequency circuit 15, of the mobile phone receiver/transmitter 1;Pg.3; 0029).

### Claim Rejections - 35 USC § 103

- V. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- VI. Claims 2-5 & 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. [US 20030069048] in view of Yuen et al. [US 5991645].

As per claim 2, Liu teaches all the particulars of the claim except the detecting device connects to the connecting device, and controls the status signal selectively being in a low level and a high level. However, Yuen teaches in an analogous art, that the mobile device of claim 1, the mobile device further comprising: a connecting device for connecting to the earphone, the

connecting device having a first terminal; a transmission line, one terminal of the transmission line electrically connecting to the processor for transmitting the status signal; (Col.9; 51-65)

A voltage source (126; Fig. 5); and a resistor (129; Fig. 5), one terminal of the resistor connecting to the voltage source, another terminal of the resistor connecting to the first terminal of the connecting device and another terminal of the transmission line; (Col.9; 66-Col. 10; 10) wherein the detecting device connects to the connecting device, and controls the status signal selectively being in a low level and a high level. (Col.11; 23-41) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the detecting device connects to the connecting device, and controls the status signal selectively being in a low level and a high level in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 3, Liu teaches all the particulars of the claim except one terminal of the switch connecting to ground, another terminal of the switch connecting to the first terminal of the connecting device. However, Yuen teaches in an analogous art, that the mobile device of claim 2, wherein the detecting device includes: a switch, one terminal of the switch connecting to ground, another terminal of the switch connecting to the first terminal of the connecting device, and a control unit for controlling the switch. (Col.9; 18-39) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include one terminal of the switch connecting to ground, another terminal of the switch connecting to the first terminal of the connecting device in order to improve the quality of service provided by telephone systems in

which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 4, Liu teaches all the particulars of the claim except the control unit includes a mechanical switch, and when the earphone is in a depressed state, the mechanical switch turns off the switch. However, Yuen teaches in an analogous art, that the mobile device of claim 3, wherein the control unit includes a mechanical switch, and when the user does not puts on the earphone, the mechanical switch turns off the switch and the manual connecting function is executed to manually answer the incoming call. (190; Fig. 5, Col.8; 50-62) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the control unit includes a mechanical switch, and when the earphone is in a depressed state, the mechanical switch turns off the switch in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 5, Liu teaches all the particulars of the claim except the control unit turns on the switch when the earphone is in an operation state. However, Yuen teaches in an analogous art, that the mobile device of claim 3, wherein the control unit turns on the switch when the user puts on earphone and the auto connecting function is executed to automatically answer the incoming call. (Col.9; 51-65) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the control unit turns on the switch when the earphone is in an operation state in order to improve the quality of service provided by telephone systems

in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 10, Liu teaches all the particulars of the claim except the control unit includes an infrared ray transmitting device and an infrared ray receiving device. However, Yuen teaches in an analogous art, that the mobile device of claim 3, wherein the control unit includes an infrared ray transmitting device and an infrared ray receiving device, when the infrared ray receiving device receives no infrared ray signal, the control unit turns on the switch and the incoming call is answered automatically. (Col.7; 32-37) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the control unit includes an infrared ray transmitting device and an infrared ray receiving device in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 11, Liu teaches all the particulars of the claim except the connecting device includes an earphone socket. However, Yuen teaches in an analogous art, that the mobile device of claim 2, wherein the connecting device includes an earphone socket. (Col.4; 44-57) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the connecting device includes an earphone socket in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a

workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 12, Liu teaches:

A mobile device (1; Fig.1) with a selective call-answering function. (Pg.3; 0029) the mobile device comprising:

An earphone (2; Figs.2, 5, Pg.2; 0025) including a detecting device (18; Fig.3, Pg.2; 0020, 0024) for providing a status signal based on whether a user puts on the earphone; (Pg.2; 0025, Pg.3; 0029)

A processor electrically connecting to another terminal of the transmission line and receiving the status signal from the transmission line, the processor including: an auto-connecting module for executing an auto connecting function; a manual-connecting module, for executing a manual-connecting function; and; (Pg.3; 0029) and a determining module (110; Fig.3), responsive to the status signal, for controlling the mobile device to selectively execute the auto-connecting function and the manual-connecting function so as to automatically or manually answer an incoming call. (i.e. The radio earphone receiver/transmitter 2 can be set at a manual in-line mode or an automatic in-line mode alternatively. When set at a manual in-line mode, the user decides whether to establish the connection between the mobile phone receiver/transmitter 1 and the earphone receiver/transmitter 2 or not. That is, if the user hears the rings of an incoming call, he or she has to press the control switch for generating a signal to the main controller 29. The main controller 29 controls the spread spectrum function module 26 to activate the radio frequency circuit 27. Therefore, the radio frequency circuit 27 is able to communicate with the

radio frequency circuit 15 of the mobile phone receiver/transmitter 1 for transmitting and receiving signals. Meanwhile, the spread spectrum function module 14 requests the main controller 17 to control the off-hook/on-hook circuit 18 for generating an on-hook signal to the mobile phone 3. When set at the automatic in-line mode, establishing the connection between the mobile phone receiver/transmitter 1 and the radio earphone receiver/transmitter 2 is determined by the radio frequency circuit 27 of the radio earphone receiver/transceiver 2. The radio frequency circuit 27 is switched to an energy-saving mode if no incoming call, activated periodically for detecting if there is an incoming call or not, and back to the energy-saving mode after detecting no incoming signal. If an incoming call is detected, the radio frequency circuit 27 is activated by the spread spectrum function module 26 for communicating with its counterpart, the radio frequency circuit 15, of the mobile phone receiver/transmitter 1;Pg.3; 0029).

Liu doesn't teach explicitly, the earphone socket having a first terminal; a transmission line, for transmitting the status signal; A voltage source; a resistor, one terminal of the resistor connecting to the voltage source, another terminal of the resistor connecting to the first terminal of the earphone socket and one terminal of the transmission line. However, Yuen teaches in an analogous art, that the earphone socket having a first terminal; a transmission line, for transmitting the status signal; (Col.9; 51-65)

A voltage source (126; Fig. 5); a resistor (129; Fig. 5), one terminal of the resistor connecting to the voltage source, another terminal of the resistor connecting to the first terminal of the earphone socket and one terminal of the transmission line; (Col.9; 66-Col. 10; 10) and

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Liu including the earphone socket having a first terminal; a transmission

line, for transmitting the status signal; A voltage source; a resistor, one terminal of the resistor connecting to the voltage source, another terminal of the resistor connecting to the first terminal of the earphone socket and one terminal of the transmission line in order to improve the quality of service providing automated activation of one or more operating parameter based on headset connection.

As per claim 13, Liu teaches all the particulars of the claim except one terminal of the switch connecting to ground, another terminal of the switch connecting to the first terminal of the connecting device. However, Yuen teaches in an analogous art, that mobile phone of claim 12, wherein the detecting device includes: a switch, one terminal of the switch connecting to ground, another terminal of the switch connecting to the first terminal of the connecting device, and a control unit for controlling the switch. (Col.9; 18-39) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include one terminal of the switch connecting to ground, another terminal of the switch connecting to the first terminal of the connecting device in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 14, Liu teaches all the particulars of the claim except the control unit includes a mechanical switch, and when the earphone is in a depressed state, the mechanical switch turns off the switch. However, Yuen teaches in an analogous art, that the mobile phone of claim 13, wherein the control unit includes a mechanical switch, and when the user does not puts

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on the earphone, the mechanical switch turns off the switch and the manual connecting function is executed to manually answer the incoming call. (190; Fig. 5, Col.8; 50-62) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the control unit includes a mechanical switch, and when the earphone is in a depressed state, the mechanical switch turns off the switch in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

As per claim 15, Liu teaches all the particulars of the claim except the control unit turns on the switch when the earphone is in an operation state. However, Yuen teaches in an analogous art, that the mobile phone of claim 13, wherein the control unit turns on the switch when the user puts on earphone and the auto connecting function is executed to automatically answer the incoming call. (Col.9; 51-65) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the control unit turns on the switch when the earphone is in an operation state in order to improve the quality of service provided by telephone systems in which the presence of a representative or operator at a workstation impacts the quality of service, it is desirable that logging on and logging off be automated.

VII. Claims 6 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Yuen as applied to claim above and further in view of Lewis [US 20040033820].

As per claim 6, the above combination teaches all the particulars of the claim except the earphone further includes a hook and a pad rotatably connecting with the hook. However, Lewis teaches in an analogous art, that the mobile device of claim 3, wherein the earphone further includes a hook and a pad rotatably connecting with the hook, when the hook clips an ear and rotates relatively to the pad, the control unit switch makes the earphone in the operation state and automatically answer the incoming call. (Pg.4; 0081) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the earphone further includes a hook and a pad rotatably connecting with the hook in order to provide a hands-free kit for mobile radio.

As per claim 16, the above combination teaches all the particulars of the claim except the earphone further includes a hook and a pad rotatably connecting with the hook. However, Lewis teaches in an analogous art, that the mobile phone of claim 13, wherein the earphone further includes a hook and a pad rotatably connecting with the hook, when the hook clips an ear and rotates relatively to the pad, the control unit switch makes the earphone in the operation state and automatically answer the incoming call. (Pg.4; 0081) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include the earphone further includes a hook and a pad rotatably connecting with the hook in order to provide a hands-free kit for mobile radio.

VIII. Claims 7 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Yuen as applied to claim above and further in view of Yamato et al. [US 20040204161].

As per claim 7, the above combination teaches all the particulars of the claim except a pressure sensor. However, Yamato teaches in an analogous art, that the mobile device of claim 3, wherein the control unit includes a pressure sensor, when the earphone is placed on an ear to press the pressure sensor, the control unit turns on the switch and automatically answer the incoming call. (Pg.6; 0088) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a pressure sensor in order to provide a hands-free unit for portable telephone system.

As per claim 17, the above combination teaches all the particulars of the claim except a pressure sensor. However, Yamato teaches in an analogous art, that the mobile phone of claim 13, wherein the control unit includes a pressure sensor, when the earphone is placed on an ear to press the pressure sensor, the control unit turns on the switch and automatically answer the incoming call. (Pg.6; 0088) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a pressure sensor in order to provide a hands-free unit for portable telephone system.

IX. Claims 8 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Yuen as applied to claim above and further in view of Lester et al. [US 6002763].

As per claim 8, the above combination teaches all the particulars of the claim except a temperature sensor. However, Lester teaches in an analogous art, that the mobile device of claim

3, wherein the control unit includes a first temperature sensor for measuring a first temperature and a second temperature sensor for measuring a second temperature, the control unit turns on the switch when the first temperature is higher than the second temperature and automatically answer the incoming call. (Col.4; 8-15) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a temperature sensor in order to provide a hands-free kit for mobile radio.

As per claim 18, the above combination teaches all the particulars of the claim except a temperature sensor. However, Lester teaches in an analogous art, that the mobile phone of claim 13, wherein the control unit includes a first temperature sensor for measuring a first temperature and a second temperature sensor for measuring a second temperature, the control unit turns on the switch when the first temperature is higher than the second temperature and automatically answer the incoming call. (Col.4; 8-15) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a temperature sensor in order to provide a hands-free kit for mobile radio.

X. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Yuen as applied to claim above and further in view of Mooney et al. [US 20020098878].

As per claim 9, the above combination teaches all the particulars of the claim except an ultrasonic transmitting device. However, Mooney teaches in an analogous art, that the mobile device of claim 3, wherein the control unit includes an ultrasonic transmitting device and an

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ultrasonic receiving device, when the ultrasonic receiving device receives an ultrasonic signal, the control unit turns on the switch and automatically answer the incoming call. (Pg.2; 0019)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include an ultrasonic transmitting device in order to provide a system of switching between two different sources.

### Response to Amendments & Arguments

XI. Applicant's arguments filed on 1/27/2006 have been fully considered but they are not persuasive.

In response to Applicant's argument that Liu doesn't teach, "An earphone including a detecting device for providing a status signal based on whether a user puts on the earphone;" it is noted that Liu supports the assertion as, please see FIG. 5 illustrates the block diagram of the radio earphone receiver/transmitter 2. The radio earphone receiver/transmitter 2 includes an earphone 21, a microphone 22, a power supply unit 23, a control switch 24, an encoder/decoder 25, a spread spectrum function module 26, a radio frequency circuit 27, a memory unit 28, and a main controller 29. The power supply unit 23 is a power source of the radio earphone receiver/transmitter 2, and its power is supplied by a chargeable battery and can be substituted by an alkaline battery. The control switch 24 generates an off-hook/on-hook signal while being pressed by a user. The encoder/decoder 25, connected to the earphone 21 and a microphone 22, is to provide an analog-to-digital/digital-to-analog conversion and a linear encoding/decoding for the input signals. As shown in FIG. 6, the spread spectrum function module 26 is connected to the encoder/decoder 25. The spread spectrum function module 26 includes an I/O interface

261, an oscillator 262, a voice modulator 263, a base frequency modulator 264, a resetter 265, a park signal detector 266, and an ID code generator/identifier 267, all of which are with the same function comparing with their counterparts in the spread spectrum function module 14 of the mobile phone receiver/transmitter 1; (Pg.2; 0025, Pg.3; 0029) Hence, it is believed that *Liu still teaches the claimed limitations*.

For that reason, it is believed and as enlighten above, the rejections should be sustained.

#### Conclusion

XII. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

XIII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is (571) 272-7870. The examiner can normally be reached on M-F. (8:30-5).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or <a href="mailto:EBC@uspto.gov">EBC@uspto.gov</a>.

Sharad Rampuria Examiner Art Unit 2617

> GEORGE ENG SUPERVISORY PATENT EXAMINER